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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,921	08/27/2003	Tran M. Nguyen	194-29741-US	6081

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EXAMINER
DOUGLAS, JOHN CHRISTOPHER

ART UNIT	PAPER NUMBER
1764	

MAIL DATE	DELIVERY MODE
09/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/649,921	NGUYEN ET AL.	
	Examiner	Art Unit	
	John C. Douglas	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Examiner acknowledges the response filed on 7/02/2007 containing amendments to the claims and remarks. Examiner acknowledges the amendment to claim 12.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 9-21 and 27-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Crump (US 5389594). Crump discloses chelants used in oil drilling that comprise one of citric acid, glyceric acid, gluconic acid, or glycollic acid, such chelants being useful in water. The oil/chelant mixture further comprises sulfuric acid to reduce the pH of the mixture to about 4.2. The amount of chelant in the wash water is about 0.01 to about 40 weight percent and corrosion inhibitors are included in the composition. See Crump, column1, lines 16-27, column 11, lines 57-65, column 13, lines 22-29 and 57-64, column 14, lines 1-14, column 16, and lines 27-50.

2. Claims 1-8 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds (US 4988433) in view of Crump (US 5389594). Reynolds discloses a method of transferring metals from a crude oil to a water phase including contacting the oil with water that already includes the chelant. The pH of the mixture is adjusted so that it remains above 2. See Reynolds, column 3, lines 12-39. Reynolds also discloses the electrically directed precipitation of metals (see Reynolds, column 1, lines 49-65).

Reynolds does not disclose the chelating compounds claimed.

However, Crump discloses chelants used in oil drilling that comprise one of citric acid, glyceric acid, gluconic acid, or glycollic acid, such chelants being useful in water. The oil/chelant mixture further comprises sulfuric acid to reduce the pH of the mixture to

about 4.2. The amount of chelant in the wash water is about 0.01 to about 40 weight percent and corrosion inhibitors are included in the composition. See Crump, column1, lines 16-27, column 11, lines 57-65, column 13, lines 22-29 and 57-64, column 14, lines 1-14, column 16, and lines 27-50.

Crump discloses that such chelants are useful in oil drilling and production (see Crump, column 5, lines 40-59).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the process of Reynolds to include chelants used in oil drilling that comprise one of citric acid, glyceric acid, gluconic acid, or glycollic acid in order to use chelants that are useful in oil drilling and production.

Response to Arguments

Applicant's first argument is that Crump only very generally discloses the prior art chelants and that they may be useful in a long list of applications. Therefore, Applicant argues that the Crump reference does not teach that the chelants of the invention are used in oil drilling operations. However, Crump discloses that chelants in general and the chelants of the invention of Crump are useful in oil field operations (see Crump, column 1, lines 16-27 and column 5, lines 40-59). Therefore, it would be obvious to use the chelants of citric acid, glyceric acid, gluconic acid, or glycollic acid in oil field operations, because Crump teaches that chelants are useful in oil field operations.

Applicant's second argument is that Crump provides no motivation to combine the mineral acids to the chelant mixture. However, Crump discloses that sulfuric acid

aids in recycling used chelants (see Crump, column 11, lines 57-66). Therefore, it would be obvious, in light of Crump, that a recycled chelant could contain sulfuric acid.

Applicant's third argument is that Reynolds in view of Crump does not disclose electrostatic coalescence. However, Reynolds also discloses the electrically directed precipitation of metals (see Reynolds, column 1, lines 49-65).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Douglas whose telephone number is 571-272-1087. The examiner can normally be reached on 7:30 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola can be reached on 571-272-1444. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JCD

9/16/2007

Supervisory Patent Examiner
Technology Center 1700